

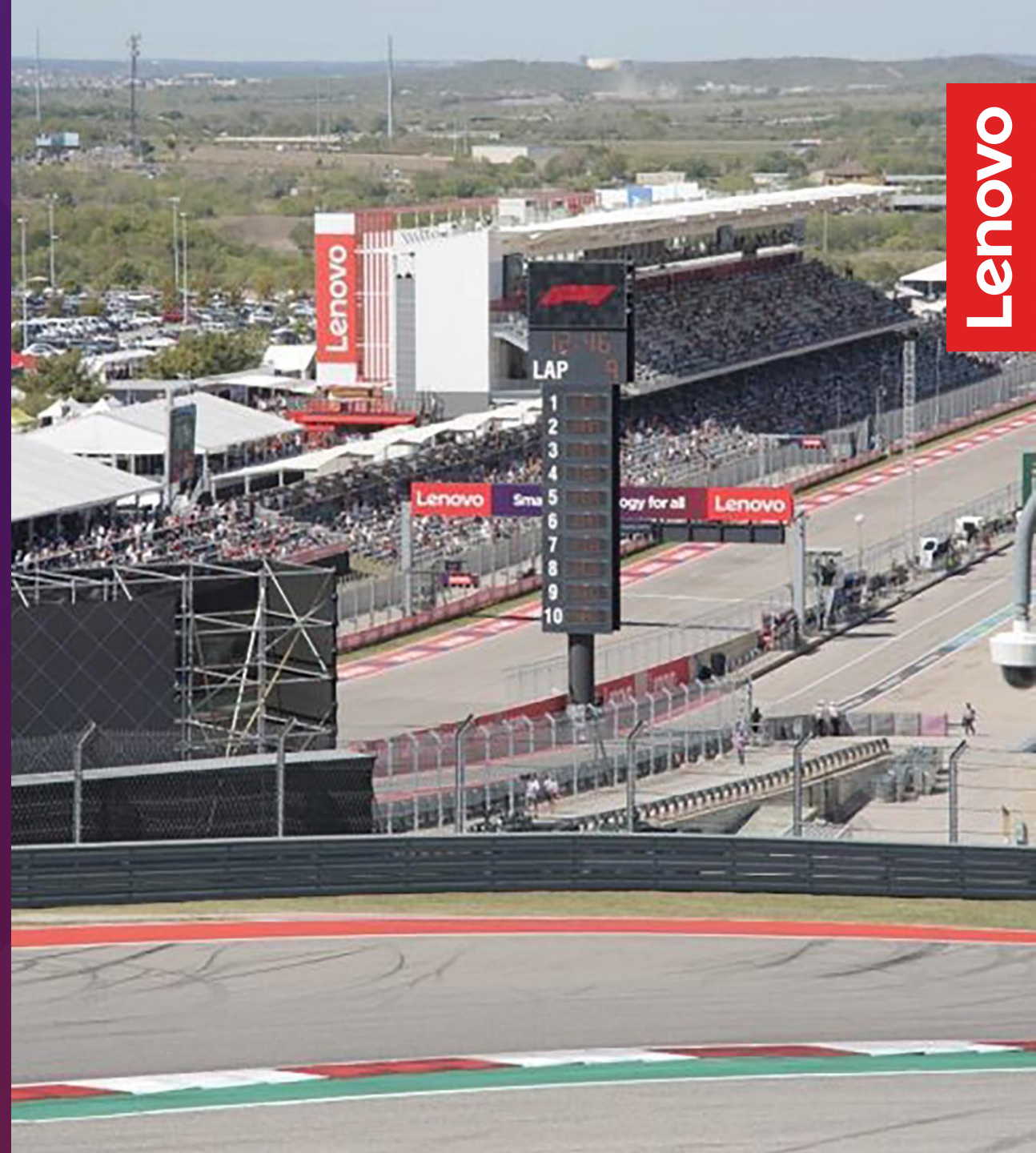
Entertainment / Leisure / Sport

# Thrilling fans using AI-driven event planning

Circuit of the Americas

COTA puts on a show-stopping experience by training its staff with an intelligent virtual assistant and managing crowds with innovative computer vision solutions, supported by Lenovo ThinkEdge technology.

Lenovo  
**AI Innovators**



Lenovo

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## Who is Circuit of the Americas?

Located in Austin, Texas, Circuit of the Americas (COTA) is a premier sports and entertainment venue that hosts world-famous motorsport, live music, and club night events. Home to a thrilling 3.41-mile racetrack, COTA is the only purpose-built venue in the United States designed to hold prestigious motorsports tournaments—including MotoGP, NASCAR, and Formula 1.



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## The Challenge

Formula 1 selected COTA's racetrack as the location for the 2023 United States Grand Prix. As soon as COTA received the booking, the venue hit the gas on event preparations. With 430,000 fans expected to attend, COTA needed to hire and train over 10,000 contingent workers to run ticketing, food, beverage, and merchandise stalls, as well as operate security, manage crowds, and keep the venue clean throughout the three-day event.

Traditionally, the venue would train people for similar events through a series of face-to-face workshops. However, with no single source of truth for training materials, staff received different instruction and varying levels of training, which often led to confusion and caused delays during events when staff radioed line managers to confirm policies and procedures. Moreover, many of COTA's team members speak English as an additional language. In some instances, this led to communication barriers during training and the event itself—creating further confusion.

## **Pedal to the metal preparation**

Hiring and training workers is only one part of hosting the Grand Prix. Designing the layout of the venue and building stalls and point of sale terminals at optimal positions is vital to drive revenues and deliver a safe, line-free fan experience.

Historically, COTA designed layouts using a best-guess approach. If staff spotted a crowd forming during the event, they would radio their colleagues to find out which areas of the arena were quieter and then direct guests appropriately. Without real-time information or a centralized view of crowd movements, managers had to make these decisions based on their subjective perception of crowd sizes and guest flow.

COTA recognized that recent advantages in artificial intelligence (AI) could potentially help it to enhance staff training and deliver greater insight into crowd control. To explore the possibility of this cutting-edge technology, COTA enlisted the support of Lenovo. Crucially, with the date of the Grand Prix fast approaching, any new AI-driven solutions would need to be built, tested, and deployed in under three weeks.

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“A massive amount of work goes on behind the scenes to make sure that events like the Formula 1 United States Grand Prix run without a hitch. While traditional approaches to staff training and crowd management enabled us to keep guests safe and entertained, we knew that AI solutions could potentially help us to improve efficiency. However, we lacked the skills in-house to develop and deploy this new technology—especially with only three weeks to set up supporting infrastructure and hire staff.”

**Daniel Bazarte**

Director of Network Technology, Circuit of the Americas

# Partnering with true innovators

To help COTA leverage AI, Lenovo brought together three leaders from the Lenovo AI Innovators Program: [Vistry](#), [WaitTime](#), and [AMSYS Innovative Solutions](#). With expertise in virtual assistant technology, Vistry set out to design a staff support chatbot to enhance training and coordination. Meanwhile, WaitTime aimed to help COTA improve crowd management and maximize stall revenues with its AI-powered crowd intelligence platform.

Texas-based IT services provider AMSYS was also enlisted to deploy all of the AI technology and supporting infrastructure on-site. This included a Lenovo ThinkEdge SE450 edge server to support the Vistry ZenoChat application and a Lenovo ThinkEdge SE455 edge server to power the WaitTime solution.

## Hardware

Lenovo ThinkEdge SE450  
Lenovo ThinkEdge SE455

## Software

WaitTime  
Vistry ZenoChat

## Developing cutting-edge solutions

To give event staff 24/7 access to information on venue policies covering ticketing, guest assistance, health and safety policies, and much more, Vistry leveraged its ZenoChat solution to build a dedicated virtual staff assistant and interactive venue map. As well as providing a single source of truth for all venue policies, ZenoChat automatically provides answers to a wide range of FAQs. While Vistry started building the virtual assistant three weeks before the event, the Vistry team only had three days to train the AI engine under the hood—and then test and deploy the solution.

Similarly, WaitTime worked closely with AMSYS to set up its crowd intelligence solution, which uses computer vision technology to automatically detect when crowds form at COTA. To ensure full coverage throughout the venue, AMSYS installed additional cameras throughout the arena. The WaitTime solution analyzes these video feeds in real time and provides managers with instant alerts as soon as crowds form, while also anonymously tracking and counting guest movement in specific areas of interest at the venue.

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“Within just three weeks, we built a brand-new virtual assistant to help staff and deployed an AI-powered crowd intelligence system for the first time. We simply wouldn't have been able to achieve this impressive feat without the expertise, support, and close collaboration of Lenovo, Vistry, WaitTime, and AMSYS. What's more, we were able to pack everything away in just one week after the grand finale of the 2023 United States Grand Prix.”

**Daniel Bazarte**

Director of Network Technology, Circuit of the Americas



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## Results

Leveraging AI-driven virtual assistants and a crowd intelligence solution delivered tremendous efficiency savings and a wave of fresh insights for COTA. For instance, Vistry ZenoChat successfully managed 845 staff queries in both English and Spanish, saving approximately 21 hours of staff time—almost a third of the entire event’s running time.

With WaitTime providing a centralized view of crowd flow, managers could immediately spot crowds forming across the venue and direct guests to other spaces with more capacity—helping to reduce lines and provide a smooth guest experience.



3 weeks from solution design to deployment



21 hours of staff time saved with Vistry ZenoChat



Supports data-driven event planning

## Planning for the future

Most of all, COTA gained unprecedented insight into guest behavior and crowd movement throughout the event—valuable data that it is harnessing to support planning for the 2024 United States Grand Prix.

“WaitTime empowers us to see where bottlenecks formed at our venue, which stalls were most popular with guests, and measure how different stalls perform depending on their placement throughout the venue,” comments Daniel Bazarte, Director of Network Technology at Circuit of the Americas. “We’ve already adjusted the way we design some of the overpasses that connect different parts of the racetrack to make it easier for guests to move between different areas.”

Vistry ZenoChat also delivered new insights on staff training. “We looked at the Vistry ZenoChat usage to see the most common staff queries and we have already identified a few simple ways that we can make key information even more available and accessible to help staff save time and focus on providing excellent customer service.”

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“Working with Lenovo, Vistry, WaitTime, and AMSYS has really opened our eyes to the transformative potential of AI in the events space. We’re still discovering new ways to enhance our operations from the 2023 Grand Prix, and we’re excited for what the future holds. Looking ahead, we are exploring how to offer guests digital solutions—such as pre-ordering food and drink via app and offering real-time updates on how busy different parts of the venue are. With AI, can we make this possible.”

**Daniel Bazarte**

Director of Network Technology, Circuit of the Americas

# Why **Lenovo**?

With such a tight deadline to develop, test, and move into production with tailored AI solutions, COTA looked for partners that could adapt quickly to fast-changing event planning scenarios. As an events specialist, COTA also wanted to ensure that its partners could provide round-the-clock technical support.

“Lenovo, Vistry, WaitTime, and AMSYS went the extra mile to help us meet our goals and they reacted fast when the unexpected happened,” comments Bazarte. “For instance, our shipment of surveillance cameras was delayed and was not going to arrive on time. Lenovo and WaitTime helped us find an alternative supplier quickly and AMSYS picked them up directly from the supplier—helping us to keep event preparations on track.”



## Partner perspective: AMSYS Innovative Solutions

Established in 2003 and based in Houston, Texas, AMSYS Innovative Solutions provides managed and co-managed IT services, cybersecurity, physical security, cloud, Voice over Internet Protocol (VoIP), Audio Visual (AV), data center, and networking solutions to clients across multiple sectors.



“We are really proud of the partnership we built with COTA and Lenovo during this project, and we’re truly pleased to work with Vistry and WaitTime to configure, test, and deploy some of the most innovative applications currently available in the events sector.”

**Shemon Bar-Tal**

President of Global Services, AMSYS Innovative Solutions



## Partner perspective: WaitTime

WaitTime develops world-leading AI-powered crowd intelligence solutions that provide its clients with the ability to analyze crowd behavior in real time. Using WaitTime solutions, operations leaders get up-to-the-second data on crowd movement, density, and occupancy and gain the tools they need to help guests navigate airports, shopping malls, amusement parks, live venues, and more.



“We’ve supported clients in the event space for almost a decade, but this was the first time we had the opportunity to deploy our solution at scale and to a tight deadline. We’re pleased to see that WaitTime delivered valuable insights during the 2023 United States Grand Prix and is helping COTA to optimize event planning with the aim of boosting revenues and enhancing the guest experience.”

**Zack Klima**  
CEO, WaitTime



## Partner perspective: Vistry

Founded in 2020, Vistry offers pioneering conversational AI capabilities to companies operating in multiple industries. The company's flagship LumoChat and ZenoChat solutions are precision-engineered to help organizations deliver friendly, supportive, and responsive employee engagement and customer support.



“Vistry ZenoChat really helped COTA to revolutionize operational efficiency, step up customer service, and provide staff with all the information they needed to thrive at the 2023 United States Formula 1 Grand Prix. We look forward to working with COTA in the years ahead to keep refining the solution and help them uncover even further efficiency enhancements.”

**Atif Kureishy**

CEO and Founder, Vistry



# How can venues stage crowd-pleasing events?

Circuit of the Americas partners with Lenovo, Vistry, WaitTime, and AMSYS to boost operational efficiency and delight fans.

[Explore Lenovo AI Solutions](#)